

| L Number | Hits | Search Text   | DB  | Time stamp       |
|----------|------|---|---|------------------|
| 1        | 100  | reflective same crystal same light same modulator same pixel  | USPAT   | 2004/06/23 13:09 |
| 2        | 0    | (reflective same crystal same light same modulator same pixel) same refresh\$4  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2004/06/23 13:10 |
| 3        | 13   | (reflective same crystal same light same modulator same pixel) and refresh\$5   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2004/06/23 13:12 |
| 4        | 121  | refresh\$5 adj (control\$3 or circuit) with (pixel or display) with memory  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2004/06/23 13:42 |
| 5        | 91   | (refresh\$5 adj (control\$3 or circuit) with (pixel or display) with memory) and @ad<19990730   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2004/06/23 13:27 |
| 6        | 23   | refresh\$5 adj (control\$3 or circuit) with (pixel or display) with DRAM  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2004/06/23 13:42 |
| -        | 50   | ((("6140983") or ("5790177") or ("5767913") or ("5739803") or ("5508733") or ("5502576") or ("6049694") or ("5691777") or ("5805126") or ("6043801") or ("6078316") or ("4969734") or ("5085506") or ("4818098") or ("5287537") or ("5945972") or ("5194852") or ("5835104") or ("6067071") or ("6157978") or ("6157396") or ("5572655") or ("5774178") or ("5864342") or ("5886701") or ("5952680") or ("5418546") or ("5546128") or ("6049316") or ("5901246") or ("5835082") or ("5608864") or ("5537128") or ("6108014") or ("5526025") or ("5831588") or ("5444457") or ("5627558") or ("5280280") or ("6005546") or ("5233689") or ("5041823") or ("5956716") or ("4839634") or ("5206629") or ("5446479") or ("5589852") or ("5162787") or ("5170156") or ("5192946")).PN. | USPAT   | 2001/03/21 13:46 |
| -        | 50   | ((("5214419") or ("5506597") or ("5515076") or ("5467104") or ("5659327") or ("6008781") or ("6072454") or ("5172262") or ("4662746") or ("6091386") or ("5615376") or ("5473342") or ("5128660") or ("6049317") or ("6008820") or ("5012274") or ("5096279") or ("5061049") or ("5880702") or ("5694141") or ("5687132") or ("5892900") or ("5910987") or ("5915019") or ("5949876") or ("5982891") or ("5917912") or ("5412396") or ("5311206") or ("6147456") or ("5982082") or ("6084345") or ("6087766") or ("6127774") or ("6111353") or ("4890257") or ("5448257") or ("5835388") or ("5287096") or ("5272473") or ("5748268") or ("5675390") or ("5900867") or ("5995155") or ("5650831") or ("4882683") or ("5596339") or ("5867166") or ("5471225") or ("6115032")).PN. | USPAT   | 2001/03/14 14:05 |

|   |         |   |       |                  |
|---|---------|---|-------|------------------|
| - | 50      | ((("6011291") or ("5655940") or ("5738731") or ("6025252") or ("6137120") or ("6106734") or ("6177706") or ("5959640") or ("5583795") or ("5528402") or ("5945777") or ("5487172") or ("5614961") or ("5715021") or ("5920361") or ("5355251") or ("5424605") or ("5597518") or ("5674351") or ("5185599") or ("6005916") or ("5588032") or ("5774110") or ("5922058") or ("5771399") or ("5079544") or ("5214420") or ("5990983") or ("5534950") or ("5028939") or ("5812105") or ("4956619") or ("4596992") or ("4566935") or ("4615595") or ("4710732") or ("5412579") or ("6183092") or ("6088045") or ("5774133") or ("4893115") or ("4115765") or ("4149145") or ("5841418") or ("6118413") or ("5874928") or ("6067098") or ("5936616") or ("5724063") or ("4737921")).PN. | USPAT | 2001/03/14 14:05 |
| - | 0       | (semiconductor adj5 substrates)same memory same bandwidth   | USPAT | 2001/03/14 14:38 |
| - | 29      | semiconductor same substrates same bandwidth  | USPAT | 2001/06/27 15:44 |
| - | 0       | (update with bandwidth)same memory same substrates  | USPAT | 2001/03/14 14:44 |
| - | 66      | (update with bandwidth)same memory  | USPAT | 2001/03/14 14:57 |
| - | 906     | 345/204,205,1,2.ccls.   | USPAT | 2001/03/14 14:57 |
| - | 0       | 345/204,205,1,2.ccls. and ((update with bandwidth)same memory )   | USPAT | 2001/03/14 14:57 |
| - | 66      | 345/204,205,1,2.ccls. and (bandwidth)   | USPAT | 2001/03/14 14:58 |
| - | 288     | (pixel with memory)same bandwidth   | USPAT | 2001/03/14 16:03 |
| - | 49      | ((pixel with memory)same bandwidth) same (update or renew or refresh or restore or refurbish)   | USPAT | 2001/03/14 16:04 |
| - | 105     | substrate with memory with refresh  | USPAT | 2001/06/27 14:48 |
| - | 2       | (substrate with memory with refresh) and 345/\$.ccls.   | USPAT | 2004/06/23 13:09 |
| - | 1816215 | crystal over substrate  | USPAT | 2001/03/21 13:51 |
| - | 47710   | ( crystal over substrate ) with memory  | USPAT | 2001/03/21 13:51 |
| - | 2986    | (( crystal over substrate ) with memory) and 345/\$.ccls.   | USPAT | 2001/03/21 13:52 |
| - | 5048    | (( crystal over substrate ) with memory) with cells   | USPAT | 2001/03/21 13:52 |
| - | 75      | (( ( crystal over substrate ) with memory) with cells) and 345/\$.ccls.   | USPAT | 2001/03/21 13:56 |
| - | 26      | ((((( crystal over substrate ) with memory) with cells) and 345/\$.ccls.) and refresh   | USPAT | 2001/03/22 09:04 |
| - | 1       | 6140983.pn.   | USPAT | 2001/03/22 09:04 |
| - | 0       | 6140983.pn. and cpu   | USPAT | 2001/03/22 09:05 |
| - | 1       | 6140983.pn. and refresh   | USPAT | 2001/03/22 09:05 |
| - | 1       | 6140983.pn. and dynamic   | USPAT | 2001/03/22 09:05 |
| - | 1       | 6140983.pn. and dynamic and dynamic and cycle   | USPAT | 2001/03/22 09:06 |
| - | 0       | lcas with pixel with memory   | USPAT | 2001/06/27 10:58 |
| - | 1       | liquid adj crystal adj over adj semiconductor   | USPAT | 2001/06/27 11:01 |
| - | 64      | LCOS  | USPAT | 2001/06/28 07:57 |
| - | 0       | LCOS same memory same pixel same (refresh adj memory)   | USPAT | 2001/06/27 11:07 |
| - | 5       | LCOS same memory same pixel   | USPAT | 2001/06/27 11:07 |
| - | 0       | LCOS and (pixel with substrate with memory)   | USPAT | 2001/06/27 11:11 |
| - | 42      | pixel with substrate with memory  | USPAT | 2001/06/27 11:18 |
| - | 0       | LCOS with memory  | USPAT | 2001/06/27 11:19 |
| - | 5       | LCOS same memory  | USPAT | 2001/06/27 11:19 |
| - | 10      | liquid adj crystal adj over adj (semiconductor or silicon)  | USPAT | 2001/06/27 14:49 |
| - | 0       | substarte same reduc\$ same bandwidth   | USPAT | 2001/06/27 15:44 |
| - | 4030    | pixel adj3 memory   | USPAT | 2001/06/28 07:56 |
| - | 1509    | (pixel adj3 memory) and 345/\$.ccls.  | USPAT | 2001/06/28 07:56 |
| - | 4       | LCOS and ((pixel adj3 memory) and 345/\$.ccls.)   | USPAT | 2001/06/28 07:57 |
| - | 409     | 345/519,545.ccls.   | USPAT | 2002/04/09 11:19 |
| - | 176     | 345/519,545.ccls. and refresh   | USPAT | 2002/04/09 11:23 |
| - | 55      | memory same pixel same refresh and 345/519,545.ccls.  | USPAT | 2002/04/09 13:01 |
| - | 23      | 345/519,545.ccls. and (memory with pixel with refresh )   | USPAT | 2002/04/09 13:02 |
| - | 223     | memory with pixel with refresh  | USPAT | 2002/04/09 13:16 |
| - | 6       | (memory with pixel with refresh ) and LCOS  | USPAT | 2002/04/09 13:16 |
| - | 0       | 345/519,545.ccls. and LCOS  | USPAT | 2002/04/09 13:16 |
| - | 152     | (memory with pixel with refresh ) and 345/\$.ccls.  | USPAT | 2002/04/09 13:17 |
| - | 58      | ((memory with pixel with refresh ) and 345/\$.ccls.) and DRAM   | USPAT | 2002/04/09 15:03 |
| - | 8269    | refresh with (memory or RAM or DRAM)  | USPAT | 2002/04/09 15:03 |
| - | 1348    | (refresh with (memory or RAM or DRAM)) and 345/\$.ccls.   | USPAT | 2002/04/09 15:04 |
| - | 637     | ((refresh with (memory or RAM or DRAM)) and 345/\$.ccls.) and array   | USPAT | 2002/04/09 15:04 |
| - | 102     | (refresh with (memory or RAM or DRAM)) and 345/87-104.ccls.   | USPAT | 2002/04/09 15:04 |

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| - | 390  | refresh\$4 with (memory or ram or vram or buffer)with (pixel or display adj element)   | USPAT   | 2002/04/15 08:16 |
| - | 936  | 345/530,531,537,538,545,568.ccls.  | USPAT   | 2002/04/15 08:16 |
| - | 56   | (refresh\$4 with (memory or ram or vram or buffer)with (pixel or display adj element)) and 345/530,531,537,538,545,568.ccls. | USPAT   | 2002/04/15 08:16 |
| - | 0    | (memory adj array) with (pixel adj array) with refresh\$4  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/04/14 10:34 |
| - | 0    | (memory adj array) with (pixel adj array)  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/04/14 10:34 |
| - | 0    | (memory adj array)same (pixel adj array)   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/04/14 10:34 |
| - | 15   | (memory adj array)with (pixel adj array)   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/04/14 10:44 |
| - | 0    | (memory adj array)with (pixel adj array) same refresh\$4   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/04/14 10:45 |
| - | 0    | refresh same (pixel adj array) same (memory adj array)   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/04/14 10:46 |
| - | 0    | refresh\$ same (pixel adj array) same (memory adj array)   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/04/14 10:46 |
| - | 160  | refresh\$ same (pixel) same (memory )same array  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/04/14 10:46 |
| - | 2521 | refresh\$5 with (pixel or display) with memory   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/08/14 14:22 |
| - | 151  | (refresh\$5 with (pixel or display) with memory) same array  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/08/14 14:22 |
| - | 73   | (refresh\$5 with (pixel or display) with memory) with array  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/08/14 14:53 |
| - | 4    | (refresh adj circuit) same memory same pixel same array  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/08/14 14:55 |

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| - | 0    | (memory adj array same pixel adj array) same refresh\$5                     | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/08/14 14:56 |
| - | 52   | memory adj array same pixel adj array                                       | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/08/14 14:56 |
| - | 19   | memory adj array with pixel adj array                                       | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/08/14 15:15 |
| - | 1384 | refresh adj circuit   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/08/14 15:16 |
| - | 8    | (refresh adj circuit) same pixel same memory                                | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/08/14 15:20 |
| - | 2    | 5128658.pn.   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/08/14 15:25 |
| - | 2288 | (circuit or control\$4) same pixel same memory same array                   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/08/14 15:26 |
| - | 85   | ((circuit or control\$4) same pixel same memory same array) same refresh\$4 | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/08/14 15:43 |
| - | 2041 | refresh with memory with display  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/08/14 15:43 |
| - | 107  | (refresh with memory with display ) same array                              | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/08/14 15:50 |
| - | 258  | 345/530,535.ccls.   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/08/14 15:50 |
| - | 76   | 345/530,535.ccls. and refresh\$4  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/08/14 15:51 |
| - | 38   | 345/530,535.ccls. and (refresh\$5 with (pixel or display) with memory)      | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/08/14 15:51 |

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| - | 0     | (memory adj array) same (display or pixel) adj2 array same refresh\$4 same (cycle or tim\$4)                                    | USPAT   | 2003/08/21 09:58 |
| - | 0     | (memory adj array) same (display or pixel) adj2 array same refresh\$4   | USPAT   | 2003/08/21 09:58 |
| - | 829   | (memory ) same (display or pixel) same refresh\$4   | USPAT   | 2003/08/21 09:58 |
| - | 115   | ((memory ) same (display or pixel) same refresh\$4 ) same cycle   | USPAT   | 2003/08/21 10:35 |
| - | 7     | dram adj refresh\$4 same (memory adj control\$4) same (display adj control\$4)  | USPAT   | 2003/08/21 10:44 |
| - | 51    | DRAMadj refresh\$4 same (memory adj control\$4) same (display adj control\$4)   | USPAT   | 2003/08/21 10:44 |
| - | 7     | DRAM adj refresh\$4 same (memory adj control\$4) same (display adj control\$4)  | USPAT   | 2003/08/21 10:45 |
| - | 46    | (DRAM adj2 refresh\$5) same (memory) same (pixel or display) same control\$5  | USPAT   | 2003/08/21 10:45 |
| - | 87619 | (dynamic adj random adj access adj memory) or DRAM  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2004/03/16 10:54 |
| - | 9898  | ((dynamic adj random adj access adj memory) or DRAM) same (refresh\$4)  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2004/03/16 10:55 |
| - | 533   | ((dynamic adj random adj access adj memory) or DRAM) same (refresh\$4)) same (memory) same (pixel or display)                   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2004/03/16 10:56 |
| - | 379   | ((dynamic adj random adj access adj memory) or DRAM) same (refresh\$4)) same (memory) same (pixel or display)) and @ad<19990730 | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2004/03/16 11:32 |
| - | 431   | refresh near3 (control\$4 or circuit) with (memory) with (pixel or display)   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2004/03/16 11:33 |
| - | 233   | (refresh near3 (control\$4 or circuit) with (memory) with (pixel or display)) and @ad<19900730                                  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2004/03/16 11:35 |
| - | 20    | (refresh near3 (control\$4 or circuit) with (memory) with (pixel or display)) same DRAM   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2004/03/16 12:21 |
| - | 2357  | (pixel with memory) with array  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2004/03/16 12:21 |
| - | 24    | ((pixel with memory) with array) same (refresh\$4 near3 (circuit or control\$4))  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2004/03/16 13:12 |
| - | 4     | ((pixel with memory) with array) with refresh\$4 near3 (circuit or control\$4)  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2004/03/16 13:13 |
| - | 183   | refresh adj3 (control\$4 or circuit) with (pixel or display) with memory  | USPAT   | 2004/03/16 13:30 |

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| - | 13   | (refresh adj3 (control\$4 or circuit) with (pixel or display) with memory) same DRAM          | USPAT   | 2004/03/16 14:10 |
| - | 3691 | refresh adj3 (circuit or control\$4)  | USPAT   | 2004/03/16 14:10 |
| - | 183  | (refresh adj3 (circuit or control\$4)) with memory with (pixel or display)                    | USPAT   | 2004/03/16 14:11 |
| - | 169  | ((refresh adj3 (circuit or control\$4)) with memory with (pixel or display)) and @ad<19990730 | USPAT   | 2004/03/16 15:06 |
| - | 2574 | refresh adj (circuit or control\$4)   | USPAT   | 2004/03/16 15:07 |
| - | 68   | (refresh adj (circuit or control\$4)) with (pixel or display) with memory                     | USPAT   | 2004/03/16 15:07 |
| - | 61   | ((refresh adj (circuit or control\$4)) with (pixel or display) with memory) and @ad<19990730  | USPAT   | 2004/06/23 13:26 |
| - | 2    | "6326975"   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2004/03/16 15:47 |